

Please enter the following amended claims:

1-76 (cancelled).

77. (New) A method of inhibiting mucus secretion by a mucus-secreting cell comprising administration to said cell a mucus-inhibitory amount of a peptide consisting of from about 10 to about 50 contiguous amino acids from the N-terminal sequence of SEQ ID NO: 3, wherein said peptide inhibits MARCKS protein-related mucus hypersecretion, and whereby mucus hypersecretion by said cell is reduced compared to that which would occur in the absence of said peptide.

78. (New) A method of inhibiting mucus secretion by a mucus-secreting epithelial cell contained within airway mucous membranes or gastrointestinal mucous membranes of a mammalian subject comprising administration to said cell a mucus-inhibitory amount of a peptide consisting of from about 10 to about 50 contiguous amino acids from the N-terminal sequence of SEQ ID NO: 3, wherein said peptide inhibits MARCKS protein-related mucus hypersecretion, and whereby mucus hypersecretion by said cell is reduced compared to that which would occur in the absence of said peptide.

79. (New) The method according to claim 78, wherein said administration is to the airways of said mammalian subject.

80. (New) The method according to claim 79, further comprising removal of retained mucus secretions from the airways of said mammalian subject prior to administering said peptide.

81. (New) The method according to claim 78, wherein said administration is to the gastrointestinal tract of said mammalian subject.

82. (New) The method according to claim 79, wherein said administration is by inhalation.

83. (New) The method according to claim 77, wherein said peptide is myristoylated.

84. (New) The method according to claim 78, wherein said peptide is myristoylated.

85. (New) A method of inhibiting mucus secretion in the airways of a subject in need of such treatment comprising administration to the airways of said subject a mucus-inhibitory amount of a peptide consisting of from about 10 to about 50 contiguous amino acids from the N-terminal sequence of SEQ ID NO: 3; wherein said compound inhibits MARCKS protein-related mucus hypersecretion, and whereby mucus hypersecretion in said airways is reduced compared to that which would occur in the absence of said peptide.

86. (New) The method according to claim 85, wherein said subject suffers from a disease or condition in which airway mucus hypersecretion is a dominant clinical finding.

87. (New) The method according to claim 86, wherein said disease or condition is selected from the group consisting of bronchitis, asthma, cystic fibrosis, chronic obstructive pulmonary disease (COPD), bronchiectasis, emphysema, pneumonia, influenza, rhinitis and the common cold.

88. (New) The method according to claim 85, further comprising removal of retained mucus secretions from the airways of said mammalian subject prior to administering said peptide.

89. (New) The method according to claim 85, wherein said administration is by inhalation.

90. (New) The method according to claim 85, wherein said peptide is myristoylated.

91. (New) A pharmaceutical formulation comprising a peptide consisting of from about 10 to about 50 contiguous amino acids from the N-terminal sequence of SEQ ID NO: 3; wherein said peptide inhibits MARCKS protein-related mucus hypersecretion, and a pharmaceutically acceptable carrier.

92. (New) The pharmaceutical formulation according to claim 91, wherein said formulation is aerosolized.

93. (New) The pharmaceutical formulation according to claim 91, wherein said peptide is contained within liposomes.

94. (New) The pharmaceutical formulation according to claim 91, wherein said peptide is myristoylated.

95. (New) A method of inhibiting mucus secretion by a mucus-secreting epithelial cell contained within airway mucous membranes or gastrointestinal mucous membranes of a mammalian subject comprising administration to said cell a mucus-inhibitory amount of MANS peptide, wherein said MANS peptide inhibits MARCKS protein-related mucus hypersecretion, and whereby mucus hypersecretion by said cell is reduced compared to that which would occur in the absence of said MANS peptide.

96. (New) The method according to claim 95, wherein said administration is

to the airways of said mammalian subject.

97. (New) The method according to claim 96, further comprising removal of retained mucus secretions from the airways of said mammalian subject prior to administering said peptide.

98. (New) The method according to claim 95, wherein said administration is to the gastrointestinal tract of a mammalian subject.

99. (New) The method according to claim 95, wherein said administration is by inhalation.

100. (New) The method according to claim 95, wherein said MANS peptide consists of a peptide of SEQ ID NO:1 or a myristolated peptide of SEQ ID NO: 1.

101. (New) A method of inhibiting mucus secretion in the airways of a subject in need of such treatment comprising administration to the airways of said subject a mucus-inhibitory amount of a MANS peptide, wherein said MANS peptide inhibits MARCKS protein-related mucus hypersecretion, and whereby mucus hypersecretion in said airways is reduced compared to that which would occur in the absence of said MANS peptide.

102. (New) The method according to claim 101, wherein said subject suffers from a disease or condition in which airway mucus hypersecretion is a dominant clinical finding.

103. (New) The method according to claim 102, wherein said disease or condition is selected from the group consisting of bronchitis, asthma, cystic fibrosis, chronic obstructive pulmonary disease (COPD), bronchiectasis, emphysema, pneumonia,

influenza, rhinitis and the common cold.

104. (New) The method according to claim 101, further comprising removal of retained mucus secretions from the airways of said mammalian subject prior to administering said peptide.

105. (New) The method according to claim 101, wherein said administration is by inhalation.

106. (New) The method according to claim 101, wherein said MANS peptide consists of a peptide of SEQ ID NO: 1 or a myristolated peptide of SEQ ID NO: 1.

107. (New) A pharmaceutical formulation comprising a MANS peptide, wherein said MANS peptide inhibits MARCKS protein-related mucus hypersecretion, and a pharmaceutically acceptable carrier.

108. (New) The pharmaceutical formulation according to claim 107, wherein said formulation is aerosolized.

109. (New) The pharmaceutical formulation according to claim 107, wherein said MANS peptide is contained within liposomes.

110. (New) The pharmaceutical formulation according to claim 107, wherein said MANS peptide consists of a peptide of SEQ ID NO: 1 or a myristolated peptide of SEQ ID NO: 1.